

WHAT IS CLAIMED IS:

- 1 1. A method comprising:
2 receiving transformed error correction data;
3 determining if an error characteristic of the transformed error correction data has
4 occurred; and
5 providing an error indicator when it is determined an error characteristic has occurred.
- 1 2. The method as in Claim 1, wherein the transformed error correction data includes
2 multiple channels of transformed error correction data.
- 1 3. The method as in Claim 2, wherein the error characteristic includes an error type.
- 1 4. The method as in Claim 3, wherein the error type includes overflow errors.
- 1 5. The method as in Claim 4, wherein extraneous transformed error correction data is
2 ignored when an overflow error has been determined.
- 1 6. The method as in Claim 3, wherein the error type includes underflow errors.
- 1 7. The method as in Claim 6, further including completing a set of transformed error
2 correction data with predetermined values when an underflow has been detected.
- 1 8. The method as in Claim 7, wherein the predetermined values include zeros.

- 1 9. The method as in Claim 2, wherein the error characteristic indicates a channel associated
2 with the error.
- 1 10. The method as in Claim 2, wherein the error indicator includes an identifier of the error
2 characteristic.
- 1 11. The method as in Claim 2, wherein providing the error indicator includes generating an
2 interrupt.
- 1 12. The method as in Claim 2, wherein providing the error indicator includes setting a flag.
- 1 13. The method as in Claim 12, wherein separate flags are set for different error identifiers.
- 1 14. The method as in Claim 13, wherein the separate flags are set for different channels.
- 1 15. The method as in Claim 14, wherein the separate flags are polled to determine an error
2 has occurred.
- 1 16. The method as in Claim 15, wherein a driver is used to perform the polling.
- 1 17. The method as in Claim 2, wherein separate error indicators are provided for different
2 error channels.
- 1 18. The method as in Claim 1, wherein the error-characteristics include an error type.
- 1 19. The method as in Claim 18, wherein the error type includes overflow errors.

- 1 20. The method as in Claim 19, wherein extraneous transformed error correction data is
2 ignored when an overflow error has been determined.
- 1 21. The method as in Claim 18, wherein the error type includes underflow errors.
- 2 22. The method as in Claim 18, further including completing a set of transformed error
3 correction data with predetermined values when an underflow error has been determined.
- 1 23. The method as in Claim 22, wherein the predetermined values include zeros.
- 1 24. The method as in Claim 1, wherein the error indicator includes an identifier of the error
2 characteristic.
- 1 25. The method as in Claim 1, wherein providing the error indicator includes generating an
2 interrupt.
- 1 26. The method as in Claim 1, wherein providing the error indicator includes setting a flag.
- 1 27. The method as in Claim 26, wherein separate flags are used for different error identifiers.
- 1 28. The method as in Claim 27, further including polling separate flags to determine the
2 error.
- 1 29. The method as in Claim 28, wherein a driver is used to perform the polling.

- 1 30. The method as in Claim 1, wherein the transformed error correction data is related to
2 multimedia data.
- 1 31. The method as in Claim 30, wherein the multimedia data includes video data.
- 1 32. The method as in Claim 31, wherein the transformed error correction data is discrete
2 cosine transformed (DCT) data relating to video error correction data.
- 1 33. The method as in Claim 1, further including using a predetermined state when an error
2 has been determined.
- 1 34. The method as in Claim 33, wherein the predetermined state includes providing a set of
2 error correction data filled with predetermined values.
- 1 35. The method as in Claim 34, wherein the predetermined values include a set of error
2 correction data filled with zeros.
- 1 36. The method as in Claim 35, wherein the error characteristic includes errors during the
2 submission of processed transformed error correction data.

- 1 37. A method comprising:
2 performing error detection on received transformed data;
3 determining if an error has been found in the transformed data;
4 determining if the error is associated with a set of protected data; and
5 identifying a channel associated with the error if the error is associated with a set of
6 protected data.
- 1 38. The method as in Claim 37, wherein determining an error includes identifying an error
2 flag which has been set.
- 1 39. The method as in Claim 38, wherein a plurality of flags is polled to determine an error
2 has occurred.
- 1 40. The method as in Claim 37, wherein determining an error includes receiving an interrupt
2 indicating an error has occurred.
- 1 41. The method as in Claim 37, wherein determining if the error is associated with a set of
2 protected data includes identifying an encryption key assigned to the set of protected
3 data.
- 1 42. The method as in Claim 41, wherein identifying a channel associated with the error
2 includes identifying a channel assigned an encryption key register.
- 1 43. The method as in Claim 37, further including performing corrective measures to reduce
2 errors related to new data.
- 1 44. The method as in Claim 43, wherein corrective measures include clearing data buffers.

- 1 45. The method as in Claim 43, wherein corrective measures include re-authenticating
2 encryption.

- 1 46. A computer readable medium tangibly embodying a program of instructions to
2 manipulate a data processor to:
3 determine if an error has occurred, wherein the error is related to transformed error
4 correction data; and
5 apply corrective measures when an error has occurred.
- 1 47. The computer readable medium as in Claim 46, wherein determining if the error has
2 occurred includes detecting an interrupt generated in response to an error.
- 1 48. The computer readable medium as in Claim 46, wherein determining if the error has
2 occurred includes determining if a flag has been set in response to an error.
- 1 49. The computer readable medium as in Claim 48, wherein the flag is cleared once it has
2 been read.
- 1 50. The computer readable medium as in Claim 48, wherein individual flags of a plurality of
2 flags are polled to determine if an error has occurred.
- 1 51. The computer readable medium as in Claim 50, wherein the individual flags relate to
2 different error-characteristics.
- 1 52. The computer readable medium as in Claim 51, wherein the error-characteristics include
2 error types.
- 1 53. The computer readable medium as in Claim 52, wherein the error types include overflow
2 errors.

- 1 54. The computer readable medium as in claim 52, wherein the error types include underflow
2 errors.
- 1 55. The computer readable medium as in Claim 46, further including determining an error
2 characteristic associated with the error.
- 1 56. The computer readable medium as in Claim 55, wherein corrective measures include
2 clearing data buffers.
- 1 57. The computer readable medium as in Claim 46, further including identifying errors
2 related to protected data.
- 1 58. The computer readable medium as in Claim 57, wherein corrective measures include
2 initiating re-authentication.

1 59. A system comprising:
 2 a data processor having an I/O buffer;
 3 a memory having an I/O buffer coupled to the I/O buffer of the data processor, the memory
 4 capable of storing code to control said data processor to:
 5 determine if an error has occurred, wherein the error is related to transformed
 6 error correction data; and
 7 apply corrective measures when an error has occurred;
 8 hardware coupled to said memory, said hardware including;
 9 an inverse transform component to:
 10 receive transformed error correction data, wherein the transformed error
 11 correction data is related to a set of image data; and
 12 process said transformed error correction data to generate inverse
 13 transformed results;
 14 determine if an error characteristic of the transformed error correction data
 15 has occurred; and
 16 provide an error indicator when it is determined an error characteristic has
 17 occurred; and
 18 a motion compensation processing component, wherein the motion compensation
 19 processing component to:
 20 receive the motion compensation vector data, wherein the motion
 21 compensation vector data is related to said set of image data;
 22 retrieve the inverse transformed results related to the set of image data, based
 23 upon the step of receiving motion compensation vector data; and
 24 process the motion compensation vector data and the inverse transformed
 25 results to generate at least part of an image.

1 60. The system as in Claim 59, wherein the transformed error correction data includes a plurality
 2 of channels of transformed error correction data.

- 1 61. The system as in Claim 60, wherein the error characteristic includes identifying a
2 transformed error correction data channel associated with errors.
- 1 62. The system as in Claim 59, wherein error-characteristics include error types.
- 1 63. The system as in Claim 62, wherein error types include overflow errors.
- 1 64. The system as in Claim 62, wherein the error types include underflow errors.
- 1 65. The system as in Claim 59, wherein the transformed error correction data includes DCT
2 image data.
- 1 66. The system as in Claim 59, wherein the generated inverse transformed results represent a
2 predetermined set of data when an error has occurred related to the transformed error
3 correction data.
- 1 67. The system as in Claim 59, wherein providing the error indicator includes generating an
2 interrupt.
- 1 68. The system as in Claim 59, wherein providing the error indicator includes setting a flag.
- 1 69. The system as in Claim 59, wherein corrective measures include clearing data buffers
2 associated with transformed error correction data.